

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A polynucleotide comprising a fragment of SEQ ID NO: 1 or a fragment of a sequence that hybridizes under high stringency conditions with SEQ ID NO: 1, wherein said polynucleotide in the absence of inverted terminal repeat sequences from human adeno-associated virus specifically induces expression in cardiac cells *in vivo* of a gene which is operably linked to said polynucleotide.

2 (original). The polynucleotide according to claim 1, wherein the sequence of said polynucleotide is at least 93% identical to a fragment of SEQ ID NO: 1.

3 (original). An expression cassette comprising a sequence encoding a protein or an RNA of therapeutic interest operably linked to the polynucleotide according to claim 1.

4 (currently amended). A polynucleotide comprising a fragment of SEQ ID NO: 2 or a fragment having at least 80% sequence identity to a fragment of SEQ ID NO: 2, wherein said polynucleotide in the absence of inverted terminal repeat sequences from human adeno-associated virus specifically induces expression in cardiac cells *in vivo* of a gene which is operably linked to said polynucleotide.

5 (original). An expression cassette comprising a sequence encoding a protein or an RNA of therapeutic interest operably linked to the polynucleotide according to claim 4.

6 (original). The expression cassette according to claim 3, wherein the protein or RNA of therapeutic interest increases a rate of cardiac cell division, reduces or suppresses

an immune response, induces angiogenesis, changes muscle contractility, reduces cardiac hypertrophy, reduces cardiac insufficiency, or reduces myocarditis.

7 (original). The expression cassette according to claim 5, wherein the protein or RNA of therapeutic interest increases a rate of cardiac cell division, reduces or suppresses an immune response, induces angiogenesis, changes muscle contractility, reduces cardiac hypertrophy, reduces cardiac insufficiency, or reduces myocarditis.

8 (original). The expression cassette according to claim 3, wherein the protein or RNA of therapeutic interest is a vascular endothelial growth factor, a fibroblast growth factor, an angiopoietin, or a cytokine.

9 (original). The expression cassette according to claim 5, wherein the protein or RNA of therapeutic interest is a vascular endothelial growth factor, a fibroblast growth factor, an angiopoietin, or a cytokine.

10 (original). The expression cassette according to claim 3, wherein the protein or RNA of therapeutic interest is an activating or an inhibiting transcription factor.

11 (original). The expression cassette according to claim 5, wherein the protein or RNA of therapeutic interest is an activating or an inhibiting transcription factor.

12 (original). The expression cassette according to claim 3, wherein the protein of therapeutic interest is an immunosuppressive protein.

13 (original). The expression cassette according to claim 12, wherein the immunosuppressive protein is interleukin-10, interleukin-2, or interleukin-8.

14 (original). The expression cassette according to claim 5, wherein the protein of therapeutic interest is an immunosuppressive protein.

15 (original). The expression cassette according to claim 14, wherein the immunosuppressive protein is interleukin-10, interleukin-2, or interleukin-8.

16 (original). The expression cassette according to claim 3, wherein the RNA of therapeutic interest is an antisense RNA or a ribozyme.

17 (original). The expression cassette according to claim 5, wherein the RNA of therapeutic interest is an antisense RNA or a ribozyme.

18 (original). The expression cassette according to claim 3, wherein the protein of therapeutic interest is nitric oxide synthetase, superoxide dismutase, or catalase.

19 (original). The expression cassette according to claim 5, wherein the protein of therapeutic interest is nitric oxide synthetase, superoxide dismutase, or catalase.

20 (original). A vector comprising the polynucleotide according to claim 1.

21 (original). A vector comprising the polynucleotide according to claim 4.

22 (original). A vector comprising the expression cassette according to claim 3.

23 (original). A vector comprising the expression cassette according to claim 5.

24 (original). The vector according to claim 20, further comprising an origin of replication which is active in cardiac cells.

25 (original). The vector according to claim 21, further comprising an origin of replication which is active in cardiac cells.

26 (original). The vector according to claim 20, which is a plasmid or a cosmid.

27 (original). The vector according to claim 21, which is a plasmid or a cosmid.

28 (original). The vector according to claim 20, which is or is derived from an adenovirus, a retrovirus, a herpesvirus, or an adeno-associated virus.

29 (original). The vector according to claim 21, which is or is derived from an adenovirus, a retrovirus, a herpesvirus, or an adeno-associated virus.

30 (original). A composition comprising a therapeutically-effective amount of the polynucleotide according to claim 1 and a pharmaceutically-acceptable carrier.

31 (original). A composition comprising a therapeutically-effective amount of the polynucleotide according to claim 4 and a pharmaceutically-acceptable carrier.

32 (original). A composition comprising a therapeutically-effective amount of the vector according to claim 20 and a pharmaceutically-acceptable carrier.

33 (original). A composition comprising a therapeutically-effective amount of the vector according to claim 21 and a pharmaceutically-acceptable carrier.

34 (withdrawn). A transgenic nonhuman animal comprising a reporter gene operably linked to the polynucleotide according to claim 1.

35 (withdrawn). A transgenic nonhuman animal comprising a reporter gene operably linked to the polynucleotide according to claim 4.

36 (withdrawn). A method for expressing a protein or an RNA of therapeutic interest in cardiac cells *in vivo*, comprising

- preparing a vector according to claim 22, and
- introducing said vector into cardiac cells *in vivo* so that said protein or RNA of therapeutic interest is expressed.

37 (withdrawn). A method for expressing a protein or an RNA of therapeutic interest in cardiac cells *in vivo*, comprising

- preparing a vector according to claim 23, and

- introducing said vector into cardiac cells *in vivo* so that said protein or RNA of therapeutic interest is expressed.

38 (original). The vector according to claim 20, which is any DNA not encapsidated by viral proteins.

39 (original). The vector according to claim 21, which is any DNA not encapsidated by viral proteins.